



- Board of Directors  
*Engineering and Operations Committee*

10/12/2021 Board Meeting

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**7-2**

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## **Subject**

Award a \$3,815,000 contract to Creative Home dba Chi Construction to replace the wastewater system at the Lake Mathews facility; the proposed action is in furtherance of a project that was previously determined to be exempt or otherwise not subject to CEQA

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## **Executive Summary**

The septic tank and leach field-based wastewater system at Metropolitan's Lake Mathews facility has been in operation for 80 years and is no longer reliable. Despite receiving regular maintenance, the system is exhibiting signs of failure, including plumbing and septic tank backups, clogged leach fields, and slow-draining collection pipes. This action awards a contract to replace the wastewater collection system at Lake Mathews and connect to a nearby municipal sewer system.

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## **Details**

### **Background**

An on-site wastewater system serves the maintenance buildings, administrative offices, and repair shops at Metropolitan's Lake Mathews facility. The system was installed during the reservoir's original construction in the 1930s and was expanded significantly in the 1960s. At that time, no municipal sewer system was available in the area.

The facility's wastewater system has three components: community septic tanks and leach fields; collector lines that convey wastewater from multiple facilities to the septic tanks; and sewer laterals that convey wastewater from individual buildings to the collector lines. At each septic tank, solid waste settles to the bottom of several chambers, where it undergoes biological treatment. The solids are periodically removed by pump trucks, while the liquid effluent from the tanks is dispersed through perforated pipes into subsurface soils at the leach fields. The wastewater system includes five community septic tanks and approximately 6,000 feet of collector lines and sewer laterals.

While the existing system has received regular maintenance, it is deteriorating and showing signs of potential failure. There have been repeated instances of slow-draining sinks and toilets, clogged pipes, septic tank backups, and clogged leach fields. In order to maintain reliability and reduce the risk of costly unplanned repairs, the existing wastewater system should be replaced. In recent years, residential development in the areas adjacent to Lake Mathews has begun to approach the reservoir complex. This development has brought with it the expansion of the area's municipal wastewater collection system, which is owned and operated by the Western Municipal Water District (Western). As part of this project, the existing collector lines and laterals within the Lake Mathews reservoir complex will be replaced, and the overall system will be connected to the nearby public wastewater collection system.

In April 2018, Metropolitan's Board authorized final design to replace the wastewater system at Lake Mathews. Design is complete, and staff recommends the award of a construction contract at this time.

In accordance with the April 2020 action on the biennial budget for fiscal years 2020/21 and 2021/22, the General Manager will authorize staff to proceed with the replacement of the Lake Mathews wastewater system, pending board award of the contract described below. Based on the current Capital Investment Plan (CIP) expenditure

forecast, funds for the work to be performed pursuant to this action during the current biennium are available within the Capital Investment Plan Appropriation for Fiscal Years 2020/21 and 2021/22 (Appropriation No. 15517). Funds required for work to be performed pursuant to the subject contract after fiscal year 2021/22 will be budgeted within the Capital Investment Plan Appropriation for Fiscal Years 2022/23 and 2023/24. This project has been reviewed in accordance with Metropolitan's CIP prioritization criteria and was approved by Metropolitan's CIP evaluation team to be included in the Distribution System Reliability Program.

### **Lake Mathews Site Wastewater System Replacement – Construction**

The scope of construction includes removal of existing wastewater collector lines, septic tanks, leach fields, and accessways; installation of new collector lines, accessways, and cleanouts; connection of the new lines to existing facilities and to the Western sewer main; traffic control; and site restoration.

A total of \$5.425 million is required for this work. In addition to the amount of the contract described below, other funds to be allocated include \$446,000 for construction inspection; \$248,000 for submittal review, technical support during construction, responding to requests for information, and preparation of record drawings; \$150,000 for connection and impact fees; \$292,000 for contract administration and project management; and \$474,000 for remaining budget.

**Attachment 1** provides the allocation of the required funds. The total estimated cost of Lake Mathews wastewater system replacement, including the amount allocated to date and funds allocated for the work described in this action, is approximately \$6.5 million.

### ***Award of Construction Contract (Creative Home dba Chi Construction)***

Specification No. 1944A for the Lake Mathews wastewater system replacement was advertised for bids on July 29, 2021. As shown in **Attachment 2**, three bids were received and opened on September 1, 2021. The low bid from Creative Home dba Chi Construction in the amount of \$3,815,000, complies with the requirements of the specifications. The other bids ranged from \$3,904,458.88 to \$4,153,720, while the engineer's estimate for this project was \$4,970,000. Staff investigated the difference between the low bid and the engineer's estimate and attributes the difference to the bidder's intent to the expanded use of power equipment to excavate non-rippable earth material, and this practice is anticipated to avoid delays and cost increases when compared to other rock excavation methods. For this contract, Metropolitan established a Small Business Enterprise (SBE) participation level of at least 25 percent of the bid amount. Creative Home dba Chi Construction is an SBE firm and thus achieves 100 percent participation. The subcontractors for this contract are listed in **Attachment 3**. This action awards a \$3,815,000 contract to Creative Home dba Chi Construction for Lake Mathews Site Wastewater System Replacement.

As described above, Metropolitan staff will perform construction management and inspection. Engineering Services' performance metric target range for inspection of projects with construction greater than \$3 million is 9 to 12 percent. For this project, the performance metric goal for inspection is 11.7 percent of the total construction cost. The total cost of construction for this project is \$3,815,000.

### **Alternatives Considered**

During design, staff examined the feasibility of replacing the existing septic system in-kind, including wastewater pipes, septic tanks, and leach fields. However, this alternative requires additional maintenance and contracting activities to keep the system operating in a reliable manner. In addition, a septic system provides a potential source of contamination of water stored in Lake Mathews. Overall, a new wastewater system that connects directly to Western's main sewer line provides a long-term reliable, safe, and cost-effective approach when compared to the septic system.

### **Summary**

This action awards \$3,815,000 to Creative Home dba Chi Construction for Lake Mathews Wastewater System Replacement. See **Attachment 1** for the Allocation of Funds, **Attachment 2** for the Abstract of Bids, **Attachment 3** for the listing of Subcontractors for Low Bidder, and **Attachment 4** for the Location Map.

***Project Milestone***

February 2023 – Complete construction

**Policy**

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Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

By Minute Item 51190, dated May 08, 2018, the Board authorized final design to replace the Lake Mathews Wastewater System.

By Minute Item 51963, dated April 13, 2020, the Board appropriated a total of \$500 million for projects identified in the Capital Investment Plan for Fiscal Years 2020/21 and 2021/22.

**California Environmental Quality Act (CEQA)**

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**CEQA determination for Option #1:**

The project was determined by the Board to be categorically exempt under Classes 1, 2, and 4 (Sections 15301, 15302, and 15304 of the State CEQA Guidelines) on May 8, 2018. With the current action, there is no substantial change proposed since the original project was first approved in 2018. Hence, the previous environmental documentation in conjunction with the project fully complies with CEQA and the State CEQA Guidelines. Accordingly, no further CEQA documentation is necessary for the Board to act with regard to the proposed action.

**CEQA determination for Option #2:**

None required

**Board Options**

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**Option #1**

Award \$3,815,000 contract to Creative Home dba Chi Construction for Lake Mathews Site Wastewater System Replacement.

**Fiscal Impact:** Expenditure of \$5.425 million in capital funds. Approximately \$0.5 million will be incurred in the current biennium and has been previously authorized.

**Business Analysis:** This project will provide reliable and efficient disposal of wastewater at the Lake Mathews facility in compliance with local codes and environmental regulations.

**Option #2**

Do not proceed with the project at this time.

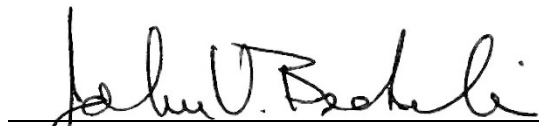
**Fiscal Impact:** None.

**Business Analysis:** This option would forgo an opportunity to reduce the risk of costly unplanned repairs.

## Staff Recommendation

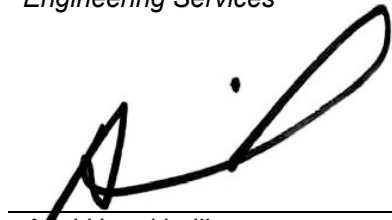
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Option #1

  
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John V. Bednarski  
Manager/Chief Engineer  
Engineering Services

9/22/2021

Date

  
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Adel Hagekhalil  
General Manager

9/29/2021

Date

**Attachment 1 – Allocation of Funds**

**Attachment 2 – Abstract of Bids**

**Attachment 3 – List of Subcontractors**

**Attachment 4 – Location Map**

Ref# es12674832

**Allocation of Funds for the Lake Mathews Site Wastewater System Replacement**

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	<b>Current Board Action (Oct. 2021)</b>
Labor	
Studies & Investigations	\$ -
Final Design	-
Owner Costs (Program mgmt., envir. monitoring)	292,000
Submittals Review & Record Drwgs.	248,000
Construction Inspection & Support	446,000
Metropolitan Force Construction	-
Materials & Supplies	-
Incidental Expenses (Connection fees & permits)	150,000
Professional/Technical Services	-
Right-of-Way	-
Equipment Use	-
Contracts	-
Creative Home dba Chi Construction	3,815,000
Remaining Budget	474,000
<b>Total</b>	<b><u>\$ 5,425,000</u></b>

The total amount expended to date is approximately \$1.04 million. The total estimated cost to complete this project, including the amount appropriated to date and funds for the work described in this action, is \$6.5 million.

**The Metropolitan Water District of Southern California**  
**Abstract of Bids Received on September 1, 2021, at 2:00 P.M.**  
**Specifications No. 1944A**  
**Lake Mathews Site Wastewater System Replacement**

The work consists of replacement of the existing sewer collection systems including sewer pipe, cleanouts, and septic tanks; and installation of new sewer mains, laterals, manholes, cleanouts, and connection to the local sewer system.

Engineer's estimate: \$4.97 million

Bidder and Location	Total	SBE \$	SBE %	Met SBE <sup>1</sup>
Creative Home dba Chi Construction Anaheim, CA	\$3,815,000.00	\$3,815,000	100%	Yes
Trinity Construction Blue Jay, CA	\$3,904,458.88	-	-	-
CEM Construction, Corp. Montebello, CA	\$4,153,720.00	-	-	-

<sup>1</sup> Small Business Enterprise (SBE) participation level established at 25% for this contract.

**The Metropolitan Water District of Southern California****Subcontractors for Low Bidder****Specifications No. 1944A****Lake Mathews Site Wastewater System Replacement**

Low bidder: Creative Home dba Chi Construction

Subcontractor and Location
Manhole Builders, Inc. Corona, CA
Brickley Environmental San Bernardino, CA

